

Examiner states that "a new title is required that is clearly indicative of the invention to which the claims are directed."

Please amend the title from "Diode Device" to "Thermionic Vacuum Diode Device with Positioned Electrodes."

Examiner states that "Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Appropriate correction is required." Please replace the Specification with the Substitute Specification provided by Applicants. Line and sentence spacing have been standardized in the Substitute Specification. For the convenience of the Examiner, the below amendments, and the amendment to the title, have been made in the Substitute Specification.

On page 1, line 9 and 10, please delete "a Continued Prosecution Application filed 3 March 1998 of".

On page 1, lines 12 - 17, please replace the paragraph

" This application is also related to "Method for Increasing Emission through a Potential Barrier" by Tavkheldize, filed 31 August 1998 as a Continuation in Part of a Continuation in Part filed 29 June 1998 of U.S. Pat. Appl. No. 09/020,654, filed 9 February 1998, and assigned to the same assignee as the present invention."

with

-- This application is also related to U.S. Pat. Appl. No. 09/645,997, filed 31 August 1998 as a Continuation in Part of U.S. Pat. Appl. No. 09/645,985, filed 9 February 1998 as a Continuation

in Part of U.S. Pat. No. 6,281,514, and assigned to the same assignee as the present invention.--.

On page 2, line 7, after the word "Theoretically", please insert a comma --, --.

On page 3, line 3, please replace "K" with --degrees Kelvin--.

On page 3, line 6, please replace "K" with --degrees Kelvin--.

On page 3, line 11, after the words "It is", please insert a comma --, --.

On page 3, line 11, after the word "therefore", please insert a comma --, --.

On page 4, line 10, please replace "piezo electric" with --piezo-electric--.

On page 4, line 21, please replace "entitled :TEC as" with --entitled: "TEC as--

On page 5, line 2, please replace "K" with --degrees Kelvin--.

On page 5, lines 16 - 18, please replace "In Edelson's Patent Application, filed 1997 January 27, titled "Method and Apparatus for Thermionic Converter", serial number 08/790,753," with --In U.S. Pat. No. 5,994,638 to Edelson, --.

On page 6, line 5, please replace "piezoelectric" with --piezo-electric--.

On page 7, line 16, please replace "thermotunnelling" with --thermotunneling--.

On page 7, lines 19 - 21, please replace "In Edelson's application filed 12th May 1997, titled "Method and Apparatus for Photoelectric

Generation of Electricity", serial number 08/854,302," with --In U.S. Pat. No. 5,973,259 to Edelson,--.

On page 9, lines 2 - 4, please replace "In Edelson's disclosure, filed 1995 July 5, titled "Method and Apparatus for Vacuum Diode Heat Pump", serial number 08/498,199," with --In U.S. Pat. No. 6,089,311 to Edelson,--.

On page 9, line 16, please replace "**Piezoelectric**" with --Piezo-electric--.

On page 9, line 17, please replace "Piezoelectric" with --Piezo-electric--.

On page 9, line 17, please replace "piezo" with --piezo-electric--.

On page 9, line 19, please replace "Angstrom" with --angstrom--.

On page 9, line 22, please replace "piezoelectric" with --piezo-electric--.

On page 9, line 24, please replace "Kleinschmidt" with --Kleinschmidt--.

On page 10, line 10, after the word "beams", please insert --measuring--.

On page 10, line 25, please replace "piezoelectric" with --piezo-electric--.

On page 11, line 2, please replace "high resolution" with --high-resolution--.

On page 11, line 3, please replace "subnanometer" with --sub-nanometer--.

On page 11, line 6, please replace "piezoelectric" with --piezo-electric--.

On page 11, line 9, please replace "piezoelectric" with --piezo-electric--.

On page 11, line 17, please replace "4937489" with --4,937,489--.

On page 12, line 19, please replace "electrons" with --electrodes--.

On page 13, line 2, after the word "Thus", please insert a comma -- , --.

On page 16, line 18, after the word "heat", please insert --energy--.

On page 16, line 19, after the word "efficiently", please insert --inter-converted and--.

On pages 18 - 20, please delete the section "**REFERENCE NUMERALS IN DRAWINGS**" beginning on page 18, line 23, and ending on page 20, line 4.

On page 20, line 14, please replace "5" with --3--.

On page 20, line 17, please replace "5A" with --4--.

On page 20, line 20, please replace "6" with --5--.

On page 21, line 4, please bold "1" as --1--.

On page 21, line 11, please replace "Region" with --region--.

On page 21, line 13, please replace "piezo" with --piezo-electric--.

On page 21, line 19, please bold "2" as --2--.

On page 21, line 23, please replace "connectng" with --connecting--.

On page 22, line 1, please replace "piezo" with --piezo-electric--.

On page 22, line 10, after the word "Alternatively", please insert a comma --, --.

On page 22 line 10, after the word "controller", please insert --29--.

On page 22, line 12, please bold "2" as --2--.

On page 22, line 16, please replace "piezo" with --piezo-electric--.

On page 23, line 9, after the word "controller", please insert --29--.

On page 23, lines 9 and 10, please replace "piezo elements" with --piezo-electric actuators 20--.

On page 23, line 16, please replace "piezo elements" with --piezo-electric actuators--.

On page 23, line 18, please replace "another) ," with --another) that--.

On page 24, line 2, please bold "10" as --10--.

On page 24, line 8, please replace "evacuated" with --"evacuated"--.

On page 24, line 12, please replace "5" with --3--.

On page 25, line 4, please replace "Power Chip" with --the device--.

On page 25, line 15, please bold "2" as --2--

On page 25 line 17, please replace "5" with - 3 --.

On page 25, line 20, please replace "tunneling version, the" with --tunneling version where the--

On page 26, line 1, please replace "5A" with --4--.

On page 26, line 4, please replace "steel, form" with --steel, and form--.

On page 26, line 8, please replace "etc" with --etc--.

On page 26, line 15, following the word "electrode", please insert --1--.

On page 26, line 16, please replace "upwards" with --toward the thermal interface 30--.

On page 26, line 19, please replace "piezo" with --piezo-electric--.

On page 27, line 6, please replace "6" with --5--.

On page 27, line 17, please replace the word "this" with --another layer--.

On page 28, line 2, please replace "800K" with --800 degrees Kelvin--.

On page 28, line 11, please replace "5" with --3--.

On page 28, lines 11 and 12, please replace "piezo electric elements" with --piezo-electric actuators 20--.